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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,390	02/19/2004	Alexey D. Zinin	1400.1376750	4335

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EXAMINER

CHANG, RICHARD

ART UNIT	PAPER NUMBER
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2616

MAIL DATE	DELIVERY MODE
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06/27/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/782,390

Applicant(s)

ZININ, ALEXEY D.

Examiner

Richard Chang

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/10/04, 11/18/04, 2/17/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-5, 7-9, 11, 17, 20-24, 26-28, 30 and 36 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by US patent No. 7,126,952 A1 ("Hooper et al.").

Regarding claims 1 and 20, Hooper et al. teaches a method and apparatus for control packet in MPLS network comprising of

marking packets field carrying the Layer-3 control information (setting flags and fields in packet header for layer-3 destination and routing control),

encapsulating the packets at Layer-2 (Data link level) (See Fig. 4 and 5, Col. 6, lines 36-60).

Regarding claims 2-3, 17, 21-22 and 36, Hooper et al. further teaches that the filed could be encapsulation identifier (See Fig. 5, Col. 7, lines 5-45) or MPLS label (See Fig. 4, Col. 6, lines 36-60).

Regarding claims 4-5 and 23-24, Hooper et al. further teaches that applying interface groups to packet communications within a particular interface group when marking of control packets is to be done (as to use a multilayer generic look-up process that performs classification and policing for classifying control packets) (See Fig. 4, Col. 6, lines 18-24).

Regarding claims 7-9, 11, 26-28 and 30, Hooper et al. further teaches that applying interface groups to packet communications within a customer-specific interface group or a peer interface group (e.g. on layer-2 or layer-3 connection types) (See Fig. 4, Col. 6, lines 36-60).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6, 10, 12, 16, 18-19, 25, 29, 31, 35 and 37-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent No. US patent No. 7,126,952 A1 ("Hooper et al.") in view of US patent 6,731,652 B2 ("Ramfelt et al.").

Regarding Claims 6 and 25, Hooper et al. teaches substantially all the claimed invention but did not disclose expressly the particular application involving limitations of

“applying interface groups to packet communications within a backbone interface group”.

Ramfelt et al. teaches a similar dynamic control method for layer 2/3/4 packets in MPLS network wherein packets are classified at the interface port (12) and backplane (14) (See Fig. 1, Col. 2, lines 35-49).

At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to combine Ramfelt et al. with Hooper et al. in order to obtain a similar dynamic control method for layer 2/3/4 packets in MPLS network and to take advantage of classifying packets at the interface port and backplane to provide a high degree of label switching flexibility at the line rate (See Col. 1 lines 46-53).

Regarding claims 10, 12, 29 and 31, Ramfelt et al. further teaches that applying interface groups to packet communications between backplane and customer-specific interface groups or a peer interface groups (I/O port interface) (See Fig. 1, Col. 2, lines 35-49).

Regarding claims 16 and 35, Ramfelt et al. further teaches that the host 16 communication to all nodes in the backplane 14 ((See Fig. 1, Col. 2, lines 35-49).

Regarding claims 18-19 and 37-38, Ramfelt et al. further teaches that processing the received packets at a line rate using rate-limited queues (See Col. 1 lines 46-53)

5. Claims 13-15 and 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent No. US patent No. 6,731,652 B2 ("Ramfelt et al.") in view of US patent 7,126,952 A1 ("Hooper et al.") and further in view of US patent application publication No. 2003/0112749 A1 ("Hassink et al.").

Regarding claims 13-15 and 32-34, Hooper et al. and Ramfelt et al. teaches substantially all the claimed invention but did not disclose expressly the particular application involving limitations of

"applying interface groups to communication of ICMP, ping or traceroute packets".

Hassink et al. teaches a similar method for correcting fault in MPLS packet path using LSP ping protocol in conjunction with control plane (See Fig. 7, page 4, paragraph [0036]) and ICMP or LSP echo request message (traceroute) (See page 14, paragraph [0011])

At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to combine Hassink et al. with Hooper et al. Ramfelt et al. in order to obtain a method and apparatus for control packet in MPLS network and to take advantage of ping, ICMP or LSP echo request messages as using LSP ping protocol in conjunction with control plane to provide reliable fault detection and correction in MPLS network.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Chang whose telephone number is (571) 272-3129. The examiner can normally be reached on Monday - Friday from 8 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached on (571) 272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

rn

rkc

Richard Chang
Patent Examiner
Art Unit 2616

Wing Chan
6/22/07

WING CHAN
SUPERVISORY PATENT EXAMINER